

WE CLAIM:

1. A food management and processing system comprising:

5 a main data server having a global food data base storing  
information about food to be managed together with a food  
identification code for every food, the information about food  
including information about management of the food and  
information about processing of the food, the main data server  
being adapted to be externally connected via a public  
10 communication network;

a user data server having a local food data base storing  
the information about the food to be managed for every user, the  
user data server being adapted to access to the main data server  
via the public communication network;

15 a food storage apparatus having a food managing function  
and adapted to access via a user communication network to the  
user data server, the food storage apparatus including food  
identification code input means for inputting the identification  
code affixed to the food, access means for accessing via the main  
20 data server to the global food data server so that the information  
about the food corresponding to the food identification code is  
downloaded, and data control means accessing via the user data  
server to the local food data server to receive the food  
information; and

25 a food processor having an automatic food processing  
function and adapted to access via the user communication network  
to the user data server, the food processor including food  
identification code input means for inputting the identification

code affixed to the food, access means for accessing via the main data server to the global food data server so that the information about the food corresponding to the food identification code is downloaded, and data control means accessing via the user data  
5 server to the local food data server to receive the food information.

2. A food management and processing system according to claim 1, wherein the food storage apparatus has a function of  
10 the user data server.

3. A food management and processing system according to claim 1, wherein the main data server includes a personal food management data base and receives from the user data server the  
15 information about the food corresponding to a content stored on the local food data base, thereby storing the received information about the food.

4. A food management and processing system according to  
20 claim 3, wherein the main data server accepts an access to the personal food management data base received via the public communication network from a portable terminal unit.

5. A food management and processing system according to  
25 claim 3, wherein the user data server accepts an access to the local food data base received via the public communication network from a portable terminal unit.

6. A food management and processing system according to claim 3, further comprising a portable terminal unit adapted to be connected to the public communication network so as to access via the main data server to the personal food management data base.

7. A food management and processing system according to claim 4, wherein the food storage apparatus uploads the information about the food stored on the local food data base to the portable terminal unit.

8. A food management and processing system according to claim 1, wherein the food identification code input means of the food storage apparatus receives the food identification code delivered from a radio tag affixed to the food, and the data control means of the food storage apparatus accesses to the food local data base regarding the food identification code received by the food identification code input means, thereby adding or deleting the information about the food.

9. A food management and processing system according to claim 1, wherein the food identification code input means of the food processor receives the food identification code delivered from a radio tag affixed to the food, and the data control means of the food processor accesses to the local food data base regarding the food identification code received by the food identification code input means to download the information about processing of the food in the information about the food,

thereby executing the automatic food processing function on the basis of the information about processing of the food.

10. A food management and processing system according to  
5 claim 1, wherein the food identification code input means of the food processor receives the food identification code delivered from a radio tag affixed to the food, and the data control means of the food processor accesses to the global food data base regarding the food identification code received by the food  
10 identification code input means to download the information about processing of the food in the information about the food, thereby executing the automatic food processing function on the basis of the information about processing of the food.

11. A food management and processing system according to  
15 claim 9, wherein when having executed the automatic food processing, the food processor delivers to the user data server a requirement of deleting the information about management of the food from the local food data base.

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12. A main data server comprising:

a global food data base storing information about food to be managed together with a food identification code for every food, the information about food including information about  
25 management of the food and information about processing of the food; and

data processing means accepting an access received via a public communication network from a user data server, the data

processing means further accepting the information about the food corresponding to the food identification code stored on a global food data base when the information about the food is required to be downloaded, thereby providing the information about the food.

13. A main data server according to claim 12, further comprising a personal food management data base managed for every user and receiving from the user data server the information about the food corresponding to a content stored on the local food data base and storing the same.

14. A main data server according to claim 12, provided with a function of accepting an access from a portable terminal unit to the personal food management data base, the access being received via the public communication network.

15. A food managing method executed by a main data server, comprising:

storing, on a global food data base, information about food to be managed together with a food identification code for every food, the information about the food including information about management of the food and information about processing of the food; and

accepting an access from a user data server, further accepting a requirement for download of the information about the food corresponding to the food identification code stored on the global food data base, and providing the information about

the food.

16. A food managing method according to claim 15, further comprising storing, on a personal food management data base managed for every user, the information about the food corresponding to a content stored on the local food data base provided by the user data server.

17. A food managing method according to claim 15, further comprising accepting an access from a portable terminal unit to the personal food management data base, the access being received via a public communication network.

18. A user data server comprising:  
a local food data base storing information about food to be managed for every user;

access means for accessing via a public communication network to a main data server; and

data processing means adapted to be accessed via a user communication network from a food storage apparatus or a food processor to receive a requirement for readout of the information about the food stored on the local food data base, thereby accepting the requirement and providing the information about the food.

19. A user data server according to claim 18, having a function of accepting an access from a portable terminal unit to the local food data base, the access being received via the

user communication network.

20. A food managing method executed by a user data server, comprising:

5 storing, on a local food data base managing food for every user, information about food to be managed;

accepting a requirement for an access to a main data server and accessing via a public communication network to the main data server; and

10 accepting an access from a food storage apparatus or a food processor via a user communication network to receive a requirement for readout of the information about the food stored on the local food data base, thereby providing the information about the food.

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21. A food managing method according to claim 20, further comprising accepting an access from a portable terminal unit to the local food data base, the access being received via the user communication network.

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22. A food storage apparatus comprising:

food identification code input means for inputting a food identification code affixed to food;

25 access means for accessing via a main data server to a global food data base and downloading information about food corresponding to the food identification code;

data control means for accessing via a user data server to a local food data base to receive the information about the food;

and

food management means for inputting the food identification code affixed to the food stored, by means of the food identification code input means and managing the stored food on the basis of the information about the food obtained by the access means and the data control means.

23. A food storage apparatus according to claim 22, further comprising:

10 a local food data base storing the information about the food managed for every user;

access means for accessing via a public communication network to the main data server; and

15 data processing means accessed to via a user communication network by the food storage apparatus or a food processor to receive a requirement for readout of the information about the food stored on the local food data base, thereby accepting the requirement and providing the information about the food.

20 24. A food storage apparatus according to claim 22, wherein the data processing means has a function of uploading the food information stored on the local food data base in reply to an access by a portable terminal unit.

25 25. A food storage apparatus according to claim 22, wherein the food identification code input means receives a food identification code delivered from a radio tag affixed to the food, and the data control means accesses to the local food data



base to add to or delete from the data base the food corresponding to the food identification code received by the food identification code input means.

5           26. A food storage apparatus according to claim 22, which is a refrigerator including a cold storage compartment in which the food is stored and refrigerating means for refrigerating an atmosphere in the cold storage compartment.

10           27. A method of managing food in a food storage apparatus, comprising:

          inputting a food identification code affixed to food by means of food identification code input means;

          accessing via a main data server to a global food data base  
15 by access means to download information about food corresponding to the food identification code;

          accessing via a user data server to a local food data base by data control means to receive the food information; and

          inputting by data control means the food identification code  
20 corresponding to the food stored in a storage compartment and managing the stored food on the basis of food information obtained by the access means and data control means.

          28. A food managing method according to claim 27, further  
25 comprising:

          storing, on a local food data base managing for every user, the information about the food to be managed;

          accepting a requirement for access to a main data server

and accessing via a public communication network to the main data server; and

accepting an access via a user communication network from the food storage apparatus or a food processor, and providing the information about the food in reply to a requirement for readout of the information about the food stored on the local food data base.

29. A food managing method according to claim 27, further  
10 comprising uploading the information about the food stored on  
the local food data base in reply to an access by a portable  
terminal unit.

30. A food managing method according to claim 27, further  
15 comprising:

receiving the food identification code delivered from a radio tag affixed to the food by the food identification code input means; and

accessing by the data control means to the local food data  
20 base to add to or delete from the data base the food corresponding  
to the food identification code received by the food  
identification code input means.

31. A food processor comprising:  
25 food identification code input means for inputting a food  
identification code affixed to food;

access means for accessing via a main data server to a global food data base and downloading information about food

corresponding to the food identification code;

data control means for accessing via a user data server to a local food data base to receive the information about the food; and

5 food processing control means for inputting the food identification code affixed to the food to be processed, by means of the food identification code input means and executing an automatic food processing on the basis of the information about processing obtained by the access means and the data control  
10 means.

32. A food processor according to claim 31, wherein the food identification code input means receives the food identification code delivered from the radio tag affixed to the food, and the  
15 data control means accesses to the local food data base to download the information about processing of the food and execute an automatic food processing on the basis of the information of processing of the food.

20 33. A food processor according to claim 31, wherein the food identification code input means receives the food identification code delivered from a radio tag affixed to the food, and the data control means accesses to the global food data base to download the information about processing of the food and execute an  
25 automatic food processing operation on the basis of the information about processing of the food.

34. A food processor according to claim 31, provided with

a function of delivering, to the user data server, a requirement for deletion from the local food data base of the information about management of the food when the automatic food processing has been executed for the food.

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35. A method of processing food by means of a food processor, comprising:

causing food identification code input means to input a food identification code affixed to food;

10 causing access means to access via a main data server to a global food data base to download information about food corresponding to the food identification code;

causing data control means to access via a user data server to a local food data base to receive the information about the food; and  
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causing the food identification code input means to input the food identification code affixed to the food stored in a food storage apparatus and managing the stored food on the basis of the information about the food obtained by the access means and  
20 the data control means.

36. A food processing method according to claim 35, further comprising:

causing the food identification code input means to receive  
25 the food identification code delivered from a radio tag affixed to the food; and

causing the data control means to access to the local food data base to download information about processing of the food

corresponding to the food identification code received by the food identification code input means and executing an automatic food processing on the basis of the information about processing of the food.

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37. A food processing method according to claim 35, further comprising:

causing the food identification code input means to receive the food identification code delivered from a radio tag affixed to the food; and

causing the data control means to access to the global food data base to download information about processing of the food corresponding to the food identification code received by the food identification code input means and executing an automatic food processing on the basis of the information about processing of the food.

38. A food processing method according to claim 35, further comprising delivering, to the user data server, a requirement for deletion from the local food data base of the information about management of the food when the automatic food processing has been executed for the food.

39. A portable terminal unit comprising:  
communication means for accessing via a public communication network to a personal food management data base provided in a main data server and managed for every user; and  
data control means for downloading information about food

corresponding to a content of a local food data base stored on the personal food management data base.

40. A portable terminal unit comprising:

5 communication means for accessing via a user communication network to a local food data base provided in a user data server and managed for every user; and

data control means for downloading food information corresponding to a content of a local food data base stored on  
10 the local food data base.

41. A food management and processing method comprising:

storing on a global food data base information about food to be managed together with a food identification code for every  
15 food, the information about food including information about management of the food and information about processing of the food;

storing on a local food data base the information about the food managed for every user;

20 inputting the identification code affixed to the food in a food storage apparatus with a food managing function to download the information about the food corresponding to the food identification code via a public communication network from the global food data base and to download the information about the  
25 food via a user communication network from the local food data base; and

inputting the identification code affixed to the food to a food processor with an automatic food processing function to

download the food information corresponding to the food identification code via the public communication network and to download the information about the food via the user communication network from the local food data base.

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42. A food management and processing method according to claim 41, further comprising downloading the food information when a personal food management data base managed for every user and storing the information about the food corresponding to a content stored on the local food data base is accessed via the public communication network.

43. A food management and processing method according to claim 42, further comprising downloading the food information when the personal food management data base is accessed via the public communication network from a portable terminal unit.

44. A food management and processing method according to claim 41, further comprising downloading the food information when the local food data base is accessed via the user communication network from a portable terminal unit.